

**Amendments to the Claims**

This listing of claims will replace all prior versions, and listing, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A wavelength-determining unit for determining the wavelengths of a plurality of successive optical signals  $\lambda(t)$  having a wavelength variation over time, comprising:

a wavemeter unit ~~for~~which ~~determines~~ing first wavelength values  $\lambda_1(t)$  having a wavelength variation over time for the optical signals  $\lambda(t)$ ,

an absolute-measuring unit having unambiguous wavelength properties at known absolute wavelength values, and ~~for~~which ~~determines~~ing second wavelength values  $\lambda_2(t)$  having a wavelength variation over time as such of the known absolute wavelength values covered by the optical signals  $\lambda(t)$ , and

an evaluation unit ~~which~~for ~~receives~~ing ~~the said~~determined first  $\lambda_1(t)$  and second  $\lambda_2(t)$  wavelength values and ~~for providing~~generates corrected wavelength values  $\lambda'_1(t)$  having a wavelength variation over time based on a comparison of the determined first  $\lambda_1(t)$  and second  $\lambda_2(t)$  wavelength values over time.

2. (Previously Amended) The wavelength-determining unit of claim 1, wherein the wavemeter unit has a wavelength characteristic known in principle or derived from former measurements, whereby the evaluation unit adjusts the

known wavelength characteristic based on the determining second wavelength values  $\lambda_2(t)$ .

3. (Previously Amended) The wavelength-determining unit of claim 1, wherein the evaluation unit comprises a correlation unit for correlating the determined first wavelength values  $\lambda_1(t)$  with the second wavelength values  $\lambda_2(t)$ .

4. (Previously Amended) The wavelength-determining unit of claim 1, wherein the evaluation unit determines at least one of one or more offset or correction values for correcting the determining first wavelength values  $\lambda_1(t)$  to the corrected wavelength values  $\lambda_1'(t)$ .

5. (Previously Amended) The wavelength-determining unit of claim 1, wherein the wavemeter unit comprises an interferometer.

6. (Previously Amended) The wavelength-determining unit of claim 1, wherein the absolute-measuring unit comprises a gas absorption cell.

7. (Currently Amended) A measuring unit for measuring an optical characteristic of a device under test, comprising:

a wavelength variable laser source which provides ~~for providing~~ an optical signal  $\lambda(t)$  to the device under test, the optical signal  $\lambda(t)$  having a wavelength variation over the time;

a wavelength-determining unit ~~which receives for receiving~~ the optical signal  $\lambda(t)$  and ~~determining~~ determines wavelength values  $\lambda_1(t)$  thereof over the time, said wavelength determining unit comprising a wavemeter unit ~~for determining~~ which determines first wavelength values  $\lambda_1(t)$  having a wavelength variation over time for the optical signals  $\lambda(t)$ , an absolute-measuring unit having unambiguous wavelength properties at known absolute wavelength values, and ~~which for~~ determines second wavelength values  $\lambda_2(t)$  having a wavelength variation over time as such of the known absolute wavelength values covered by the optical signals  $\lambda(t)$ , and a first evaluation unit ~~which for receives~~ which receives the determined first  $\lambda_1(t)$  and second  $\lambda_2(t)$  wavelength values having a wavelength variation over time and ~~for providing~~ provides corrected wavelength values  $\lambda_1'(t)$  having a wavelength variation over time based on a comparison of the determined first  $\lambda_1(t)$  and second  $\lambda_2(t)$  wavelength values;

a receiver for receiving a signal response on the optical signal  $\lambda(t)$  provided to the device under test; and

a second evaluation unit ~~which receives~~ which receives the signal response and the ~~there~~ corresponding determined wavelength values  $\lambda_1'(t)$  having a wavelength variation over time.

8. (Currently Amended) A measuring unit for measuring an optical characteristic of a device under test, comprising:

a wavelength variable laser source ~~which for provides~~ which provides an optical signal  $\lambda(t)$  to the device under test, the optical signal  $\lambda(t)$  having a wavelength variation over the time,

a wavelength-determining unit ~~which~~for receivesing the optical signal  $\lambda(t)$  and determining relative wavelength values  $\lambda_1(t)$  having a wavelength variation over time and absolute wavelength values  $\lambda_2(t)$  thereof over the time,

a receiver ~~which~~for receivesing a signal response  $I(t)$  on the optical signal  $\lambda(t)$  provided to the device under test, and

an evaluation unit which receivesing the signal response of the receiver and ~~there~~which calculatesing the corresponding wavelength values  $\lambda_1'(t)$  having a wavelength variation over time out of the wavelength values  $\lambda_1(t)$  and  $\lambda_2(t)$  from the wavelength-determining unit resulting in a spectral response  $I(\lambda)$  of the device under test.

9. (Previously Amended) A method for determining the wavelengths of a plurality of successive optical signals  $\lambda(t)$ , comprising:

determining first wavelength values  $\lambda_1(t)$  having a wavelength variation over time for the optical signals  $\lambda(t)$ , using an absolute-measuring unit having unambiguous wavelength properties at known absolute wavelength values for determining second wavelength values  $\lambda_2(t)$  having a wavelength variation over time as such known absolute wavelength values covered by the optical signals  $\lambda(t)$ , and

providing corrected wavelength values  $\lambda_1'(t)$  having a wavelength variation over time based on a comparison of the determined first  $\lambda_1(t)$  and second  $\lambda_2(t)$  wavelength values.

10. (Previously Amended) A software product, stored on a data carrier, for executing a method for determining the wavelengths of a plurality of

Application/Control Number: 09/922,115

Group Art Unit: 2877

successive optical signals  $\lambda(t)$ , when run on a data processing system such as a computer, said method comprising:

determining first wavelength values  $\lambda_1(t)$  having a wavelength variation over time for the optical signals  $\lambda(t)$ , using an absolute-measuring unit having unambiguous wavelength properties at known absolute wavelength values for determining second wavelength values  $\lambda_2(t)$  having a wavelength variation over time as such known absolute wavelength values covered by the optical signals  $\lambda(t)$ , and

providing corrected wavelength values  $\lambda_1'(t)$  having a wavelength variation over time based on a comparison of the determined first  $\lambda_1(t)$  and second  $\lambda_2(t)$  wavelength values.